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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/401,740

09/23/99

MALHOTRA

S

D/99532

EXAMINER

IM52/0320

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SHOSHO, C

ART UNIT

PAPER NUMBER

1714

DATE MAILED:

03/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/401,740

Applicant(s)

Malhotra

Examiner

Callie Shosho

Group Art Unit

1714

☒ Responsive to communication(s) filed on Jan 3, 2001

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-22 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-22 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 1/3/01.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-2, 4, 8, 12-14, 16, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. (U.S. 5,279,655).

The rejection is adequately set forth in paragraph 5 of the office action mailed 10/10/00 and is incorporated here by reference.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, 16, and 21-22 above, and further in view of Nishizaki et al. (U.S. 6,022,910).

The rejection is adequately set forth in paragraph 6 of the office action mailed 10/10/00 and is incorporated here by reference.

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5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, 16, and 21-22 above, and further in view of Tobias et al. (U.S. 5,286,288).

The rejection is adequately set forth in paragraph 7 of the office action mailed 10/10/00 and is incorporated here by reference.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, and 16 above, and further in view of Ball (U.S. 4,684,956).

The rejection is adequately set forth in paragraph 8 of the office action mailed 10/10/00 and is incorporated here by reference.

7. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, 16, and 21-22 above, and further in view of Yaegashi et al. (U.S. 5,270,730), Wickramanayake (U.S. 5,531,816), Malhotra et al. (U.S. 5,922,117), and Breton et al. (U.S. 6,106,599).

The rejection is adequately set forth in paragraph 9 of the office action mailed 10/10/00 and is incorporated here by reference.

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8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, 16, and 21-22 above, and further in view of Shawcross et al. (U.S. 6,028,180) and Bruder et al. (U.S. 5,015,292).

The rejection is adequately set forth in paragraph 10 of the office action mailed 10/10/00 and is incorporated here by reference.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al. as applied to claims 1-2, 4, 8, 12-14, and 16 above, and further in view of JP06228476, Yaegashi et al. (U.S. 5,220,730), and Malhotra et al. (U.S. 5,902,390).

The rejection is adequately set forth in paragraph 11 of the office action mailed 10/10/00 and is incorporated here by reference.

10. Claims 1-5, 7-9, 13, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breton et al. (U.S. 6,045,607) in view of Takazawa et al. (U.S. 5,279,655), Ball (U.S. 4,684,956), and Fujioka (U.S. 5,397,388).

The rejection is adequately set forth in paragraph 12 of the office action mailed 10/10/00 and is incorporated here by reference.

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11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breton et al. in view of Takazawa et al., Ball, and Fujioka as applied to claims 1-5, 7-8, 13, and 18-20 above, and further in view of Tobias et al. (U.S. 5,286,288).

The rejection is adequately set forth in paragraph 13 of the office action mailed 10/10/00 and is incorporated here by reference.

12. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breton et al. in view of Takazawa et al., Ball, and Fujioka as applied to claims 1-5, 7-8, 13, and 18-20 above, and further in view of Yaegashi et al. (U.S. 5,270,730), Wickramanayake (U.S. 5,531,816), Malhotra et al. (U.S. 5,922,117), and Breton et al. '599 (U.S. 6,106,599).

The rejection is adequately set forth in paragraph 14 of the office action mailed 10/10/00 and is incorporated here by reference.

13. Claim 16-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breton et al. in view of Takazawa et al., Ball, and Fujioka as applied to claims 1-5, 7-8, 13, and 18-20 above, and further in view of JP06228476, Yaegashi et al. (U.S. 5,220,730), and Malhotra et al. (U.S. 5,902,390).

The rejection is adequately set forth in paragraph 15 of the office action mailed 10/10/00 and is incorporated here by reference.

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Response to arguments regarding rejections

14. Applicants' arguments filed 1/3/01 have been fully considered but they are not persuasive.

Specifically, applicants argue that:

(a) Takazawa et al. disclose the use of aromatic viscosity modifier in liquid ink composition not solid ink composition as presently claimed.

(b) Takazawa et al. do not disclose the time necessary for the ink to change from solid state to liquid state and that composition with the same melting temperature do not necessarily possess the same melting time.

(c) Breton et al. disclose entirely different composition than presently claimed.

(d) Wickramanayake, Shawcross et al., Bruder et al., and JP 6228476 are drawn to liquid inks and thus there is no motivation to combine these references with the solid ink reference of either Takazawa et al. or Breton et al.

(e) There is no motivation to combine either Takazawa et al. or Breton et al. with Ball et al.

(f) There is no motivation to combine the viscosity modifiers of Malhotra '117 or Yaegashi et al. with either Takazawa et al. or Breton et al.

With respect to argument (a), given that there is nothing in Takazawa et al. which negates using aromatic viscosity modifiers in solid ink composition, the examiner's position remains that

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Takazawa et al. disclose the use of aromatic viscosity modifiers in solid ink composition as presently claimed.

Further, attention is drawn to col.9, lines 41-48 of Takazawa et al. which disclose that the solid ink composition contains plasticizing agents such as dioctyl azelate, dioctyl sebacate, and dioctyl phthalate. It is significant to note that these compounds are identical to the viscosity adjusting agents disclosed in col.7, lines 7-8 of Takazawa et al., i.e. plasticizing agents clearly function as viscosity adjusting agents, so it would have been obvious to one of ordinary skill in the art that the solid ink of Takazawa et al. do contain aromatic viscosity adjusting agents as presently claimed.

With respect to argument (b), while applicants argue that compositions with the same melting temperature do not necessarily possess the same melting time, it is noted that not only does the ink composition of Takazawa et al. possess the same melting temperature as presently claimed, the ink composition of Takazawa et al. comprises the same ingredients as presently claimed, i.e. styrene resin, aromatic viscosity modifier, ink vehicle, colorant. In light of this, and absent evidence to the contrary, it is the examiner's position that the ink composition of Takazawa et al. would possess the same melting time as presently claimed.

With respect to argument (c), it is agreed that Breton et al. do not disclose styrene or terpene resin or aromatic viscosity modifier as presently claimed, which is why it is used in

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combination with Takazawa et al., Ball, and Fujioka all of which are drawn to hot melt inks. The ink of Breton et al. is open to the inclusion of other ingredients and nothing in Breton et al. negates against using ingredients such as styrene resin or aromatic viscosity modifier. Additionally, there is motivation to combine Takazawa et al., Ball, and Fujioka with Breton et al. including that they are all drawn to the same field of endeavor.

In light of the above, and absent evidence to the contrary, it therefore would have been obvious to one of ordinary skill in the art to use the styrene/terpene resin and aromatic viscosity modifier disclosed by Takazawa et al., Ball, and Fujioka in the ink of Breton et al., and thereby arrive at the claimed invention.

With respect to argument (d), applicants have provided no clear and convincing evidence that components present in liquid ink jet inks cannot be added to solid ink jet inks. Further, note that Wickramanayake, Shawcross et al., Bruder et al., and JP 6228476 are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references each teach a certain concept, and in combination with the primary reference, disclose the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

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With respect to argument (e), given that Ball et al. is drawn to hot melt ink as is Takazawa et al. and Breton et al. and further given that Ball teaches the use of same type and amount of resin as presently claimed, i.e. styrene resin, and absent evidence to the contrary, it is the examiner's position that there is ample motivation to combine either Takazawa et al. or Breton et al. with Ball.

With respect to argument (f), Yaegashi et al., which is drawn to hot melt inks, discloses the use of heat fusible substances such as dibenzofuran and 4-methylbiphenyl in order to produce an ink with excellent dischargeability, storability, and little blotting while Malhotra et al. '117, which is drawn to hot melt inks, discloses the use of 1-adamantane ethanol in order to ensure that the ink has low acoustic loss in order to minimize or reduce energy consumption of the printer and to generate high quality, lightfast, and waterfast images. Thus, given that both Yaegashi et al. and Malhotra et al. '117 are drawn to the same field of endeavor as either Takazawa et al. or Breton et al. and both Yaegashi et al. and Malhotra et al. '117 provide motivation for using the above described ingredients in these hot melt inks, and absent evidence to the contrary, it therefore would have been obvious to one of ordinary skill in the art to use such viscosity modifiers in the ink of either Takazawa et al. or Breton et al., and thereby arrive at the claimed invention.

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15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie Shosho whose telephone number is (703) 305-0208. The examiner can normally be reached on Mondays-Thursdays from 7:00 am to 4:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Callie Shosho

3/19/01

C.S.

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